

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028268**Date Inspected:** 26-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Scott Kourtum and John Pagliero			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006			Component:	SAS OBG	

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-W2.5@ 5030mm drop-in top deck plate inside, QA randomly observed ABF/JV qualified welder Lin E. Yun continuing to perform CJP groove welding repair at location Y=4200mm per Caltrans approved Request for Weld Repair (RWR) #201208-072. The welder was observed manually welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1004 Repair. The second time repair excavation was preheated to more than 225 degree Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket put in place on top of the deck prior/during welding. During the shift, ABF QC John Pagliero was noted monitoring the welder with measured working current of 126 amperes on the 3.2mm E7018H4R electrode and adjusted preheat temperature of 325°F during welding. The welder completed the weld repair mentioned above during the shift and performed the Post Weld Heat Treatment (PWHT) of 450°F and held it for one (1) hour after welding as required. The welder has moved to another Y=1345mm location but the same weld Identification. This repair location is being welded per Caltrans approved RWR#201208-068 using the same process and implementing the same procedure. Repair welding at this location was also completed during the shift. The following two (2) second time repairs were noted excavated and welded during the shift;

Y-location	Length	Width	Depth	Remarks
1. 4200mm	70mm	30mm	18mm	Completed.

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2. 1345mm 110mm 50mm 15mm Completed.

At OBG 13W-WK-SK1 K-plate inside, ABF welder Richard Garcia was observed continuing to perform repair welding. ABF welder Richard Garcia was observed welding in the 2G (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode. The welder preheated the repair area and its vicinity to more than 200°F during welding. During the shift, ABF QV John Pagliero was noted monitoring the welder with measured working current of 125 amperes on the 3.2mm E7018H4R electrode. The following two (2) first time repairs were noted excavated and welded during the shift;

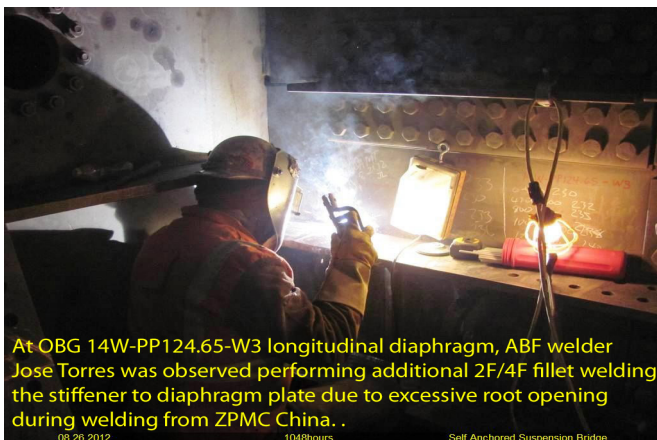
Y-location Length Width Depth Remarks

1. 400mm 120mm 30mm 18mm Completed.
2. 1050mm 210mm 30mm 18mm In-progress.

At 14W-PP124.65-W3 longitudinal diaphragm (LD) at the north side, ABF welder Jose Torres was observed performing 2F/4F fillet welding the stiffener plates RSA and RSB to longitudinal diaphragm plate. The welder was noted using SMAW with 3.2mm diameter E7018H4R electrode implementing Caltrans approved ABF-WPS-D15-F1200A. The fillet is being welded as an additional to the size that was welded at ZPMC. There was excessive gap that was noted at site between the LD and stiffener plate. According to ABF welding foreman Erick Sparks, this is also being done per instruction from ABF QC Manager Jim Bowers.

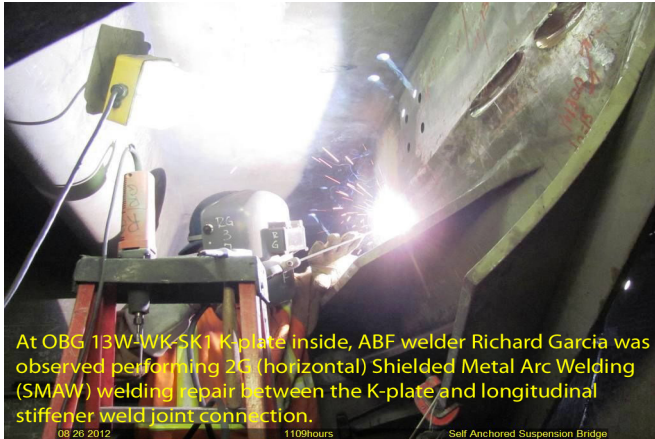
At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the CJP welding of various field welds. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 13W/14W edge plate 'G' outside/inside - splice butt joint weld cover QA verified.
2. 13W-PP121.6-W2 BW1 - vertical stiffener butt joint weld cover QA verified.
3. 13W-PP120.5-W2 BW1 - vertical stiffener butt joint weld cover QA verified.
4. 13W-PP121.0-W2 FBW1 and FBW2 - butt joint weld cover QA verified.
5. 13W-PP122.75-W3 flange and web - butt joint weld cover QA verified.



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Summary of Conversations:

At 14W-PP124.65-W3 longitudinal diaphragm (LD) at the north side, ABF foreman Erick Sparks informed this QA that ABF is adding fillet weld into the LD to the stiffener plates RSA and RSB due to excessive root opening during welding from ZPMC, China

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer